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10/591,372	06/25/2007	Dan Lundgren	NOBELB.303NP	8124

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EXAMINER
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LEWIS, RALPH A

ART UNIT	PAPER NUMBER
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3732

NOTIFICATION DATE	DELIVERY MODE
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05/13/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/591,372	<b>Applicant(s)</b> LUNDGREN, DAN	
	<b>Examiner</b> Ralph A. Lewis	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 17, 20, 22-26, 36-38, 41, 43, 45-49, 51, 54, 55, 57, 59-63, 65-68, 73, 75, 76, 78, 79, 82, 84 and 86-90 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Disposition of Claims: Claims pending in the application are 1-4,17,20,22-26,36-38,41,43,45-49,51,54,55,57,59-63,65-68,73,75,76,78,79,82,84 and 86-90.

## **Drawings**

Applicant's drawings of new additional Figures submitted 1/29/2010 are approved.

## **Specification**

The objection to the specification in the Office Action of 10/30/2009 is withdrawn in view of applicant's response of 1/29/2010.

## **35 U.S.C. 112**

The rejections based on 35 U.S.C. 112, first and second paragraphs in the Office Action of 10/30/2009 are withdrawn in view of applicant's response of 1/29/2010.

## ***Obvious-type Double Patenting Rejections***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 17, 20-27, 31, 34-39, 41, 43-49, 51, 52, 54, 55, 57-63, 65-69, 71-73, 75-80, 82 and 84-90 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over

claims 1-11 and 22-28 of copending Application No. 11/035,266 and  
claims 1-20 of copending Application No. 10/587,497.

Although the conflicting claims are not identical, they are not patentably distinct from each other because one of ordinary skill in the art would have found the differences between copending sets of claims obvious.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's assertion that the above applications are commonly owned in conjunction with the present application in the response of July 31, 2009 is noted. Additionally, applicant's request in the response of January 29, 2010 that the present provisional rejection be held in abeyance is noted.

### **Rejections based on Prior Art**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

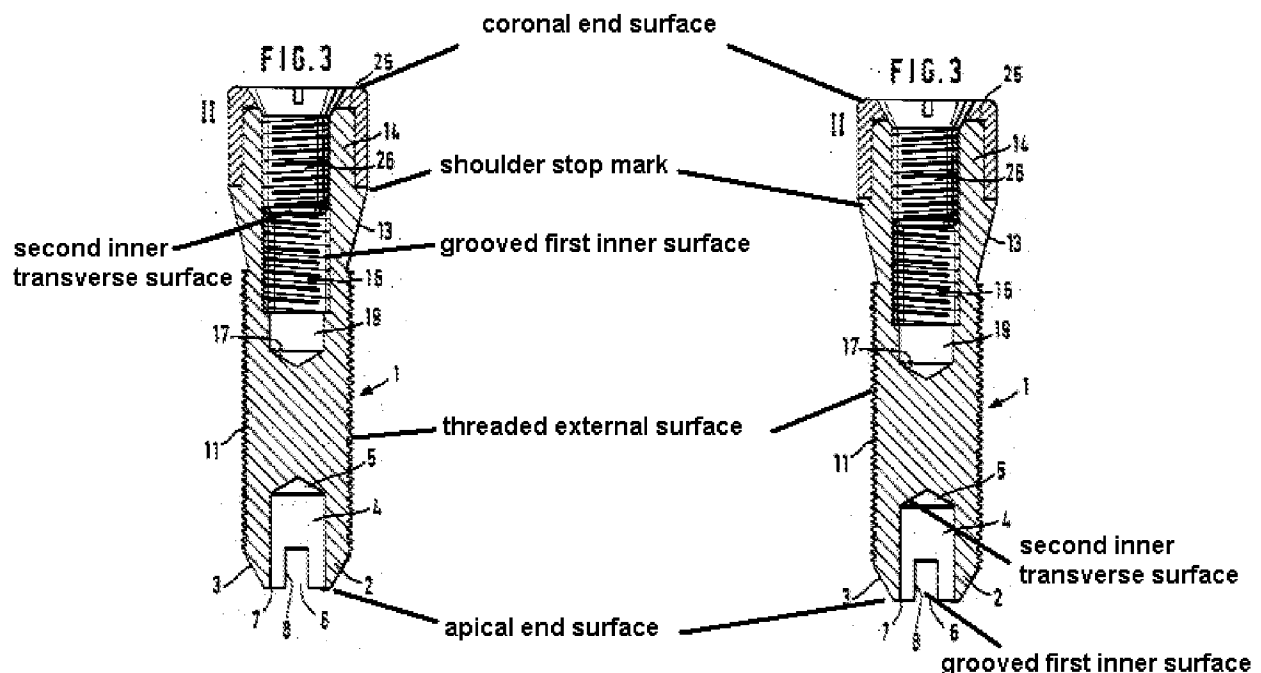
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

Art Unit: 3732

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 17, 20, 22-26, 36-38, 41, 43, 45-49, 51, 54, 55, 57, 59-63, 65-68, 73, 75, 76, 78, 79, 82, 84 and 86-90 are rejected under 35 U.S.C. 102(b) as being anticipated by Fradera (US 4,790,753).

Fradera discloses a dental implant as illustrated in Figure 3 which is capable of being interpreted with respect to applicant's claims in two different alternatives as illustrated below in the side by side marked Figures.



In regard to claim 17, note the drawing on the left. In regard to claim 20, applicant gives no particular definition for "micro threads" – with an internal diameter of 2.5 mm (column 5, line 21) the threads would inherently be cable of being measured in

Art Unit: 3732

microns. In regard to claim 22, note the drawing on the right. In regard to claim 23, note the drawing on the right where the labeled grooves on the inner surface extend from the apical end. In regard to claim 38, note column 5, line 12. In regard to claims 43 and 57, note the table at column 5. In regard to claim 45, note the cone shape 17. In regard to claims 48 and 62, note the ridges on the hex member 15. In regard to claim 49, the Fradera implant is capable of being oriented such that the pitch of the threads 16 is "horizontal." In regard to claim 59, note cone shape 5. In regard to claim 65, the third inner surface for purposes of this rejection is considered to be that inner surface immediately below the reference numeral 15 (for the first alternative interpretation the left the first inner surface is considered to be that inner surface immediate above reference numeral 15).

Claims 1-4, 17, 20, 22-26, 31, 34, 36-39, 41, 45-49, 51, 52, 54, 55, 59-63, 65-68, 73, 75, 76, 78-80, 82 and 86-90 are rejected under 35 U.S.C. 102(b) as being anticipated by Lazarof (US 5,762,500).

Lazarof discloses a dental implant 56 (Figures 2 and 3) having a threaded external surface 86, a first internal surface having both longitudinal grooves 82 and threads (note threads in element 68 of the implant) and a second inner surface (shoulder 72, Figure 3) that intersects the first surface and faces in the apical direction. In regard to claims 2-4, note the shoulder-stop mark at 90.

Art Unit: 3732

Claims 1-4, 17, 20, 23-26, 31, 34, 37-39, 41, 45-49, 51, 52, 54, 55, 59-63, 65-68, 71-73, 75, 76, 79, 80, 82 and 86-90 are rejected under 35 U.S.C. 102(e) as being anticipated by Cantor (US 2005/0164146).

Claims 1-4, 17, 20, 23-26, 31, 34, 37-39, 41, 45-49, 51, 52, 54, 55, 59-63, 65-68, 71-73, 75, 76, 79, 80, 82 and 86-90 are rejected under 35 U.S.C. 102(e) as being anticipated by Cantor (US 2007/0292820).

Cantor discloses a dental implant 100 having a coronal end 104, an apical end forming annular surface 120 threaded external surface 112, first grooved inner surface 140 and second inner surface 130. In regard to claim 2, note stop mark 102. In regard to claim 7, the threads form a rough surface. In regard to claims 10 and 11, note Figures 13 and 14.

In response to the present rejection based on Cantor 2005/0164146 applicant has filed a declaration on 1/29/2010 under 37 CFR 1.131 to establish priority to the claimed invention prior to the priority date of Cantor '146. The 131 declaration is ineffective with respect Cantor reference because the reference is a U.S. patent or U.S. patent application publication of a pending or patented application that claims the rejected invention. An affidavit or declaration is inappropriate under 37 CFR 1.131(a) when the reference is claiming the same patentable invention, see MPEP § 2306. If the reference and this application are not commonly owned, the reference can only be overcome by establishing priority of invention through interference proceedings. See MPEP Chapter 2300 for information on initiating interference proceedings. If the



Art Unit: 3732

reference and this application are commonly owned, the reference may be disqualified as prior art by an affidavit or declaration under 37 CFR 1.130. See MPEP § 718.

In response to the previous finding that an earlier 131 declaration was ineffective in overcoming the '146 Cantor invention applicant argues the claims of the present invention and that of the '146 invention are not directed to the "same patentable invention" because the claims of '146 require that the internal thread and the external thread have the same pitch. It is noted, however, that claim 31 in the present application, for example requires threading on both the internal and the external surfaces; merely specifying that this threading is of the same pitch so that the internal and external surfaces cooperate with one another, rather than resist one another during insertion of the implant would have been obvious to one of ordinary skill in the art practicing the present invention of claim 31. Applicant's distinction is not reasonably a patentable distinction, but rather an obvious variation. Moreover, it is noted that the Cantor continuing published application 2007/0292820 based on the same priority documents requires no such distinction.

It is noted that applicant has asserted common ownership with the published application; consequently, applicant might be entitled to the provisions of 37 CFR 1.130. See MPEP § 718.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3732

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 21, 27, 35, 69, 71, 72 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fradera (US 4,790,753) in view of Zuest (US 5,591,029).

Zuest for a dental implant similar to that of Fradera teaches the use of multiple threading for allowing quick and solid engagement with the bone (column 15, lines 26-31), a trephine drill 58 (Figure 7) for preparing the implant site and an implant having a diameter greater than length. To have provided the Cantor implant with double threading to allow for quick solid engagement, a trephine drill to prepare the implantation site and/or a diameter greater than length in order to improve stability in view of the teaching by Zuest would have been obvious to one of ordinary skill in the art.

Claims 6, 21, 27, 35, 69, 71, 72 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lazarof (US 5,762,500) in view of Zuest (US 5,591,029).

Zuest for a dental implant similar to that of Lazarof teaches the use of multiple threading for allowing quick and solid engagement with the bone (column 15, lines 26-31), a trephine drill 58 (Figure 7) for preparing the implant site and an implant having a diameter greater than length. To have provided the Cantor implant with double threading to allow for quick solid engagement, a trephine drill to prepare the implantation site and/or a diameter greater than length in order to improve stability in view of the teaching by Zuest would have been obvious to one of ordinary skill in the art.

Claims 6, 21, 27, 35, 69 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantor (US 2005/0164146) or Cantor (US 2007/0292820) in view of Zuest (US 5,591,029).

Zuest for a dental implant similar to that of Cantor teaches the use of multiple threading for allowing quick and solid engagement with the bone (column 15, lines 26-31) and a trephine drill 58 (Figure 7) for preparing the implant site. To have provided the Cantor implant with double threading to allow for quick solid engagement with the bone and a trephine drill to prepare the implantation site in view of the teaching by Zuest would have been obvious to one of ordinary skill in the art.

Claims 20, 34, 75 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantor (US 2005/0164146) or Cantor (US 2007/0292820) in view of Hansson et al (US 5,816,813).

To the extent that the threading on the Cantor implant does not meet the "micro threads" limitations of claims 20, 34, 75 and 76, Hansson et al teaches that microthreads provide for rapid bone growth (column 3, lines 36-46). To have made the Cantor threading of such a size in order to promote rapid bone growth would have been obvious to one of ordinary skill in the art.

Claims 22, 36, 43, 44, 53, 57, 58, 78, 84 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantor (US 2005/0164146) or Cantor (US 2007/0292820).

Art Unit: 3732

The orientation of the inner grooves, the use of the Cantor device with a prior art dental bridge and the construction of the device within the particular dimensions claimed would have been obvious to one of ordinary skill in the art desiring to practice the Cantor device as a matter of routine.

Claims 39, 44, 52, 58, 80 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fradera (US 4,790,753).

The selection of a crown as the prosthesis of Fradera at column 5, line 12 and the construction of the implant of conventional sizes would have been obvious to one of ordinary skill in the art as a matter of routine practice.

Claims 43, 44, 57, 58, 84 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lazarof (US 5,762,500)

The construction of the Lazarof implant of conventional sizes would have been obvious to one of ordinary skill in the art as a matter of routine practice.

### **Examiner Remarks**

Applicant's remarks have been addressed in the rejections above. The examiner suggests establishing common ownership to overcome the rejections based on the Cantor reference and tightening up the claims so that they do not read on prior art implants such as Fradera and Lazarof.

Art Unit: 3732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (571) 273-8300. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Cris Rodriguez, can be reached at (571) 272-4964.

R.Lewis  
May 10, 2010

/Ralph A. Lewis/  
Primary Examiner, Art Unit 3732